

## REMARKS

The Applicant wishes to express appreciation for the Examiner's recognition that claims 1-4 and 6-8 are allowable.

## Amendments to the Claims

Claims 9, 12 and 20 have been amended to more clearly describe the claimed subject matter, in order to advance the Application to issue. The Applicant respectfully submits that no new matter has been added by these amendments.

## Rejections of Claims

Claims 1-22 were originally filed in the Application on July 18, 2003. Claims 5 and 16 were cancelled in an amendment filed April 4, 2005 in response to an Office action mailed November 3, 2004. Claims 1-4 and 6-8 were allowed, and claims 9-15 and 17-22 stand rejected in an Office action mailed August 26, 2005. New claim 23 is added in this response. Claims 1, 9, 12, 20 and 23 are independent claims. Claims 2-4 and 6-8, 10-11, 13-15 and 17-19, and 21-22 depend either directly or indirectly from independent claims 1, 9, 12, and 20, respectively. The Applicant requests reconsideration of the pending claims 9-15 and 17-22, and examination of new claim 23, in light of the following remarks.

## Rejection of Claims Under 35 U.S.C. §102

Claims 9-13 and 17-22 were rejected under 35 U.S.C. 102(e) as being anticipated by Eshmawy et al. (U.S. Patent No. 6,751,203, hereinafter "Eshmawy") The Applicant respectfully traverses the rejection.

With regard to the anticipation rejections, MPEP 2131 states, "[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). MPEP 2131 also states, "[t]he identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Regarding amended claim 9, the Applicant respectfully submits that the Eshmawy reference does not teach, suggest, or disclose, for example, a combined sidetone and hybrid balance apparatus comprising a first signal path carrying a first signal; a second signal path carrying a second signal; a mode signal taking one of a first state and a second state; a single non-adaptive filter for modifying one of the first signal and the second signal; and wherein the apparatus generates a sidetone signal in the first signal by combining at least a portion of the second signal with the first signal when the mode signal is in the first state, and cancels an echo in the second signal by subtracting at least a portion of the first signal from the second signal when the mode signal is in the second state. More specifically, Eshmawy fails to teach a mode signal taking one of a first state and a second state, as recited in claim 9. Instead, Eshmawy teaches the value  $g_{echo}$  that swings between 0 and 1, that is suggested in the Office action to correspond to the mode signal of Applicant's claim 9, and that results, during operation, in varying levels of sidetone and echo control. (Office action, page 2, item 1, lines 8-12; Eshmawy, col. 4, ll. 43-56) Eshmawy also fails to teach, suggest, or disclose a single non-adaptive filter for modifying one of the first signal and the second signal, as recited in Applicant's claim 9. The Office action alleges that with the signal  $g_{echo}$  at a value of 1, the gain unit 422 corresponds to a filter that modifies the second signal, and when  $g_{echo}$  is at a value of 0, the first signal is modified by echo canceller filter 430. (Office action, page 3, lines 16-21) If Applicant were to agree with the Office action in this regard, **solely for the purpose of argument**, then these two modifications are performed by two separate circuit elements (422 and 430 of Fig. 4), that are described in the Office action as performing filtering functions. (Office action, page 3, lines 16-21) This is different from and fails to anticipate the invention employing a **single filter** as recited in Applicant's claim 9. Based at least upon the above, the Applicant respectfully submits that the Eshmawy reference fails to teach all of the elements of Applicant's claim 9, and that a rejection of claim 9 under 35 U.S.C. §102(e) cannot be maintained.

Therefore, Applicant respectfully submits that Eshmawy is different from and fails to anticipate Applicant's invention as set forth in claim 9 as amended, for at least the reasons set forth above. Because claims 10 and 11 depend from claim 9, Applicant respectfully submits that Eshmawy is different from and fails to anticipate claims 10 and 11, as well. Therefore, Applicant believes that claims 9-11 are allowable over the Eshmawy reference, and respectfully requests that the rejection of claims 9-11 under 35 U.S.C. §102(e), be withdrawn.

Regarding amended claim 12, Applicant respectfully submits that the Eshmawy reference does not teach, suggest, or disclose, for example, a method of operating a combined sidetone and hybrid balance apparatus for processing first and second input signals, the method comprising before signal processing, determining one of a first mode and a second mode of operation, establishing a first fixed set of filter coefficients if operating in the first mode, and establishing a second fixed set of filter coefficients if operating in the second mode; when in the first mode of operation, filtering the second input signal using the first fixed set of filter coefficients; combining the first input signal and the filtered second input signal to produce a combined signal; transmitting the combined signal on a first output; and transmitting the second input signal on a second output, and when in the second mode of operation, filtering the first input signal using the second fixed set of filter coefficients; transmitting the first input signal on the first output; combining the second input signal and the filtered first input signal to produce a combined signal; and transmitting the combined signal on the second output.. More specifically, Eshmawy fails to teach, suggest, or disclose before signal processing, determining one of a first mode and a second mode of operation. Instead, Eshmawy teaches a value  $g_{echo}$ , that the Office action has suggested corresponds to the mode of Applicant's claim 12, that swings between a value of 0 and 1, and that causes the echo canceller 420 and the side tone generator 418 of Eshmawy to operate at varying levels. (Office action page 2, item 1, lines 8-15) This is different from and fails to anticipate the invention recited in Applicant's claim 12. The Eshmawy reference also fails to teach or suggest establishing a first fixed set of filter coefficients if operating in the first mode, and establishing a second fixed set of filter coefficients if operating in the second mode. Instead, Eshmawy teaches an adaptive filter (See e.g., elements 428 and 430 of Fig. 4) The Applicant respectfully submits, therefore, that Eshmawy fails to teach all of the elements of Applicant's claim 12, and that a rejection of claim 12 under 35 U.S.C. §102(e) cannot be maintained.

Therefore, Applicant respectfully submits that Eshmawy is different from and fails to anticipate Applicant's invention as set forth in claim 12 as amended, for at least the reasons set forth above. Because claims 13-15 and 17-19 depend from claim 12, Applicant respectfully submits that Eshmawy is different from and fails to anticipate claims 13-15 and 17-19, as well.

Therefore, Applicant believes that claims 12, 13 and 17-19 are allowable over the Eshmawy reference, and respectfully requests that the rejection of claims 12, 13 and 17-19 under 35 U.S.C. §102(e), be withdrawn.

Regarding amended claim 20, Applicant respectfully submits that the Eshmawy reference does not teach, suggest, or disclose, for example, a method of operating a combined sidetone and hybrid balance apparatus having a first signal path and a second signal path, the method comprising receiving a control signal taking one of a first state and a second state; configuring routing of signals in the first and second paths in an electrical circuit to perform non-adaptive filtering and combining, based upon the control signal; generating a sidetone signal in the first signal path by adding at least a portion of the signal from the second signal path to the signal in the first signal path if the control signal is in the first state; and canceling an echo signal in the second signal path by subtracting from the signal in the second signal path a modified version of the signal in the first signal path if the control signal is in the second state. More specifically, Eshmawy fails to teach or suggest a control signal taking one of a first state and a second state, as recited in Applicant's claim 20. Instead, Eshmawy teaches a value  $g_{echo}$ , that the Office action has suggested performs the function of the control signal of Applicant's claim 20, and that swings between 0 and 1, taking an infinite number of values during operation. (Office action page 2, item 1, lines 8-15) Therefore, Applicant respectfully submits that the  $g_{echo}$  signal of Eshmawy does not operate in one of a first state and a second state, and is different from and fails to teach a control signal taking one of a first state and a second state. Eshmawy also fails to teach or suggest configuring routing of signals in first and second paths in an electrical circuit to perform non-adaptive filtering and combining based upon the control signal, as recited in Applicant's claim 9. Instead, Eshmawy teaches fixed routing of signals, and modification of signals using separate adaptive filtering circuitry (e.g., 428, 432 of Fig. 4) and gain circuitry (422 of Fig. 4). The Applicant respectfully submits, therefore, that Eshmawy fails to teach all of the elements of Applicant's claim 20, and that a rejection of claim 20 under 35 U.S.C. §102(e) cannot be maintained.

Therefore, Applicant respectfully submits that Eshmawy is different from and fails to anticipate Applicant's invention as set forth in claim 20, for at least the reasons set forth above. Because claims 21 and 22 depend from claim 20, Applicant respectfully submits that Eshmawy is different from and fails to anticipate claims 21 and 22, as well. Therefore, Applicant believes that claims 20-22 are allowable over the Eshmawy reference, and respectfully requests that the rejection of claims 20-22 under 35 U.S.C. §102(e), be withdrawn.

### **Rejection of Claims Under 35 U.S.C. §103**

Claims 14 and 15 were rejected under 35 U.S.C. §103(a) as being unpatentable over Eshmawy et al. (U.S. Patent 6,751,203) in view of Lashley et al. (U.S. Patent Application Publication 2004/0052358, hereinafter "Lashley"). The Applicant respectfully traverses the rejection. Applicant respectfully submits that claims 14 and 15 depend from independent claim 12. Applicant believes that claim 12 is allowable over the proposed combination of the Eshmawy and Lashley references, in that Lashley fails to overcome the deficiencies of Eshmawy. Because claims 14 and 15 are dependent claims depending from claim 12, Applicant respectfully submits that claims 14 and 15 are also allowable, for at least the reasons set forth above. Therefore, Applicant respectfully requests that the rejection of claims 14 and 15 under 35 U.S.C. §103(a) be withdrawn.

### **Newly Added Claims**

Applicant has added new independent claim 23 which is similar in many respects to claims 1-4, 6-15 and 17-22. Support for claim 23 may be found, at least for example, in paragraph [33] of the Specification. Applicants respectfully submit that the addition of this new claim does not add new matter.

### **Conclusion**

The Applicant wishes to express appreciation for the Examiner's recognition that claims 1-4 and 6-8 are allowable, and believes that in light of the reasons set forth above, all of claims 1-4, 6-15, and 17-23 are in condition for allowance. Should the Examiner disagree or have any questions regarding this submission, the Applicant invites the Examiner to telephone the undersigned at (312) 775-8000.

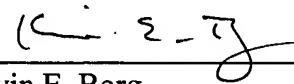
Appl. No. 10/622,499  
Reply to Office action of Jan. 26, 2006  
Amt. dated May 25, 2006

A Notice of Allowability is courteously solicited.

The Commissioner is hereby authorized to charge the large entity fee of \$120 as required under 37 C.F.R. §1.17(a)(1) for the Petition under 37 C.F.R. §1.136(a) for one (1) month extension of time, and any additional fees associated with this communication, or credit any overpayment, to Deposit Account No. 13-0017.

Respectfully submitted,

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